## 5,400 RPM 2.5-Inch SATA Hard Disk Drives

High Capacity, Energy Efficient Solutions for a Multitude of 2.5-inch Applications

MK1676GSX MK2576GSX MK3276GSX MK5076GSX MK6476GSX

Toshiba's MKxx76GSX Series 5,400 RPM hard disk drives build upon the maturity of the Toshiba 320GB<sup>1</sup> perplatter architecture to offer the same big storage capacities with enhanced quality and reliability. Five models in the MKxx76GSX family deliver capacities spanning 160 to 640GB in the compact 2.5-inch form factor.

Durable, power efficient, and reliable the MKxx76GSX drive series is ideal for notebook, all-in-one and EnergyStar<sup>®</sup> PCs, printers, gaming consoles, video surveillance systems, external storage devices and other computing applications. Massive storage capacities as well as quieter and cooler operation make the MKxx76GSX line an attractive, space-saving alternative to desktop hard drives. Power consumption can be reduced by more than 80% with the MKxx76GSX over like-capacity 3.5-inch hard disk drives.

The MKxx76GSX broadens Toshiba's line-up of environmentally-sound storage solutions by decreasing or eliminating the use of certain toxic, hazardous or controversial chemicals and materials<sup>2</sup> in the drive.

- Up to 640GB<sup>1</sup> of Storage Capacity
- 5,400 RPM Rotational Speed
- Eco-conscious and Durable Design
- MTTF of 600,000 Hours

## Drive

## 5,400 RPM2.5-Inch SATA Hard Disk Drives



Series Overview	MK1676GSX	MK2576GSX	MK3276GSX	MK5076GSX	MK6476GSX
Drive Capacity	160GB <sup>1</sup>	250GB <sup>1</sup>	320GB <sup>1</sup>	500GB <sup>1</sup>	640GB <sup>1</sup>
Drive Interface	Serial ATA, Revision 2.6 / ATA-8				
Number of Platters (disks)	1	1	1	2	2
Number of Data Heads	1	2	2	4	4
Sector Size (bytes)			512	-	-
Transfer Rate to Host	3 Gb/sec Yes				
RoHS Compliant					
Performance					
Track-to-track Seek			2 ms		
Average Seek Time	12 ms				
Rotational Speed	5,400 RPM				
Average Latency	5.55 ms				
Buffer Size	8 MB				
Power Requirements					
Voltage	5V (+/- 5%)				
Spin up (start) Power	4.5 watts				
Seek Power	1.85 watts				
Read/Write Power	1.5 watts				
Low Power Idle	0.55 watts				
Standby Power	0.18 watts				
Sleep Power			0.15 watts		
Physical Size					
Dimensions (W) x (D) x (H)	69.85 mm (2.75") x 100.0 mm (3.94") x 9.5 mm (0.37")				
Weight	98 g (3.46 oz)	98 g (3.46 oz)	98 g (3.46 oz)	102 g (3.60 oz)	102 g (3.60 oz)
Environmental					
Temp - Operating	5° to 55°C (41° - 131°F)				
Temp - Non-Operating	-40° to 60°C (-40° - 140°F)				
Vibration - Operating	9.8 m/s² (1.0G) 5 to 500 Hz				
Vibration - Non-Operating	49 m/s² (5.0G) 15 to 500 Hz				
Shock - Operating	3,920 m/s² (400G) 2ms				
Shock - Non-Operating	8,820 m/s² (900G) 1ms				
Acoustics					
Acoustics (idle)	19 dB	19 dB	19 dB	25 dB	25 dB
Acoustics (seek)	20 dB	20 dB	20 dB	25 dB	25 dB

Limited Warranty

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3 years (from date of purchase)

<sup>1</sup>One Terabyte (1TB) = 1,000 Gigabytes (GB). One Gigabyte (1GB) means  $10^{\circ}$  = 1,000,000,000 bytes using powers of 10. A computer operating system, however, reports storage capacity using powers of 2 for the definition of 1GB =  $2^{30}$  = 1,073,741,824 bytes, and therefore shows less storage capacity. Available storage capacity will also be less if the computer includes one or more pre-installed operating systems, pre-installed software applications, or media content. Actual formatted capacity may vary.

<sup>2</sup>Concentrations of chlorine and bromine are below 900 ppm for each substance, surpassing the IEC61249-2-21:2003 criteria set for printed circuit boards by the International Electrotechnical Commission (IEC), in applying the criteria to all components in the HDD. IEC is the leading global organization that defines internationally-recognized standards for electrical, electronic and associated technologies. Visit us at: www.toshibastorage.com

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